

ABSTRACT

An imaging system includes an array of lenses, a plurality of sensor pixels for each lens, the sensor pixels being on an image plane of the imaging system, and a corresponding plurality of focal plane coding elements. A focal plane coding element for each sensor pixel has multiple sub-pixel resolution elements. The focal plane coding element being between the lens and each sensor pixel, wherein sub-pixel resolution elements over the plurality of focal plane coding elements represent a selected transform matrix having a non-zero determinant. The output of the plurality of sensor pixels being an image multiplied by this matrix